



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/748,215      | 12/27/2000  | Munenori Iizuka      | Q62482              | 5359             |

7590 10/09/2003

SUGHRUE, MION, ZINN, MACKPEAK & SEAS  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037-3202

EXAMINER

PATTERSON, MARC A

ART UNIT PAPER NUMBER

1772

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/748,215

Applicant(s)

IIZUKA ET AL.

Examiner

Marc A Patterson

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### WITHDRAWN REJECTIONS

1. The 35 U.S.C 112 second paragraph rejections of Claims 6 and 8, of record on page 2 of the previous Action, are withdrawn.

### REPEATED REJECTIONS

2. The 35 U.S.C. 102(b) rejection of Claims 6 – 8 and 21 as being anticipated by Kawata et al (U.S. Patent No. 5,890,395), of record on page 3 of Paper No. 8, is repeated.

The 35 U.S.C. 103(a) rejection of Claims 1 – 2 and 4 – 5 as being unpatentable over Bito et al. (U.S. Patent No. 5,983,055) in view of Shintani et al (U.S. Patent No. 5,124,219) of record on page 4 of Paper No. 8, is repeated.

The 35 U.S.C. 103(a) rejection of Claim 9 as being unpatentable over Kawata et al (U.S. Patent No. 5,890,395) in view of Nishimuro et al (U.S. Patent No. 5,991,574), of record on page 7 of Paper No. 8, is repeated.

### NEW REJECTIONS

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6 – 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to Claim 6, the phrase ‘protrudes outward from an inner end of the

Art Unit: 1772

resin pipe to an outer end' is indefinite as its meaning is unclear. For purposes of examination, the phrase will be assumed to mean any projection.

#### ANSWERS TO APPLICANT'S ARGUMENTS

5. Applicant's arguments regarding the 35 U.S.C. 112 second paragraph rejections of Claims 1 and 7 – 8, 35 U.S.C. 102(b) rejection of Claims 6 – 8 as being anticipated by Kawata et al (U.S. Patent No. 5,890,395), 35 U.S.C. 103(a) rejection of Claims 1 – 2 and 4 – 5 as being unpatentable over Bito et al. (U.S. Patent No. 5,983,055) and 35 U.S.C. 103(a) rejection of Claim 9 as being unpatentable over Kawata et al (U.S. Patent No. 5,890,395) in view of Nishimuro et al (U.S. Patent No. 5,991,574), of record in the previous Action, have been carefully considered but have not been found to be persuasive for the reasons set forth below.

Applicant argues, on page 4 of Paper No. 13, that the claimed taper range is outside of the range disclosed in the prior art of record, and that due to the criticality of the claimed taper range, one skilled in the art would not have been motivated to engage in routine optimization to achieve the claimed taper range. However, as stated on page 2 of the previous Action, the taper angle would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the taper angle, since the taper angle would be readily determined through routine experimentation by one having ordinary skill in the art depending on the desired end result as shown by Bito et al. *In re Dailey et al.*, 119 USPQ 47 (CCPA 1966).

Applicant also argues, on page 4, that Applicant's claimed ranges for taper angle are critical, because the results are unexpected, as the specification states that when the taper angle is

Art Unit: 1772

greater than  $3.5 \times 10^{-3}$ , the resin pipe is no longer uniform in property. However, as the expected properties at the  $3.6 \times 10^{-3}$  angle disclosed by Bito et al are not discussed, it is unclear why the results are unexpected.

Applicant also argues, on page 5, that Shintani et al do not teach or suggest the claimed water absorption of less than 0.3%. However, as stated on page 2 of the previous Action, Shintani et al disclose a resin having a water absorption no higher than 10%. Therefore, the water absorption would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the water absorption, since the water absorption would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Shintani et al. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

Applicant also argues, on page 8, that Shintani et al do not teach use of an alloy resin. However, as stated on page 4 of Paper No. 8, Shintani et al teach the use of a polyamide having a water absorption less than 10% in a photosensitive member (column 2, lines 5 – 17) for the purpose of obtaining a member which is improved in humidity resistance (column 2, lines 5 – 17). The desirability of providing for a polyamide or polyamide blend having a water absorption less than 10% in Bito et al, which is a photosensitive member, would therefore be obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a blend of a polyamide resin with a resin

Art Unit: 1772

having a water absorption no higher than 10% in Bito et al in order to obtain a member which is improved in humidity resistance as taught by Shintani et al.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (703) 308-4251. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Marc A. Patterson, PhD.

*Marc Patterson*  
Art Unit 1772

*Harold Pyon*  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
*1772* *10/1/03*